

# ACE 3100-RZ

16

CPU  
CORES

5.4

GHz  
CLOCKSPEED

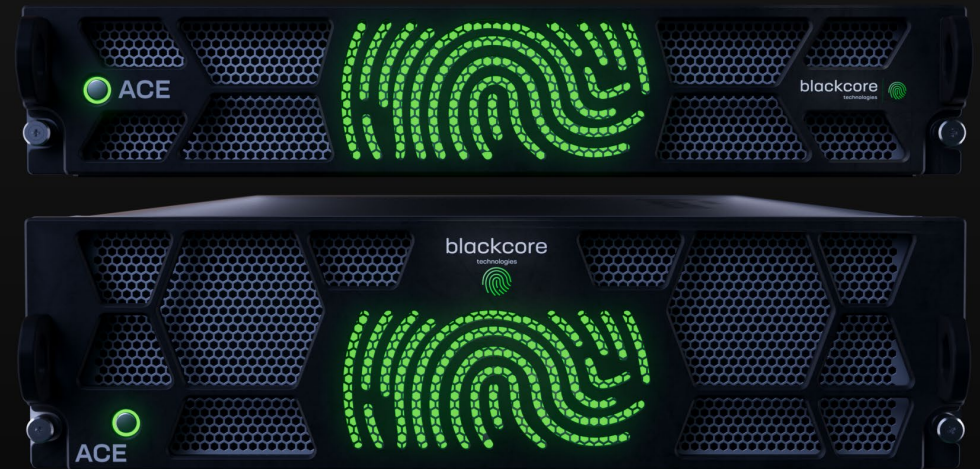
192

GB  
RAM

The Blackcore ACE range is an overclocked, liquid-cooled server platform for AMD CPUs. Generating ultimate performance for low latency use cases.

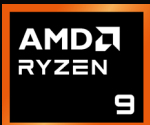
The 3100-RZ series focuses on AMD Ryzen 9950X and boasts 16 Cores overclocked 5.4GHz. The series features 2U and 3U variations with DDR5 ECC support.

Perfect for low core count workloads that benefit from high frequency, but need more cache, or reliability of overclocked ECC RAM.



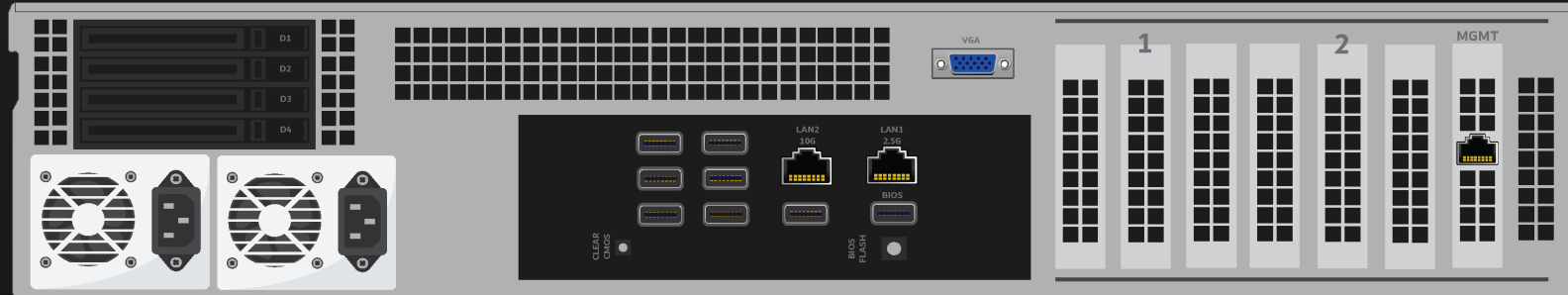
HTS-84715000  

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# ACE 3120-RZ

2U Vertical

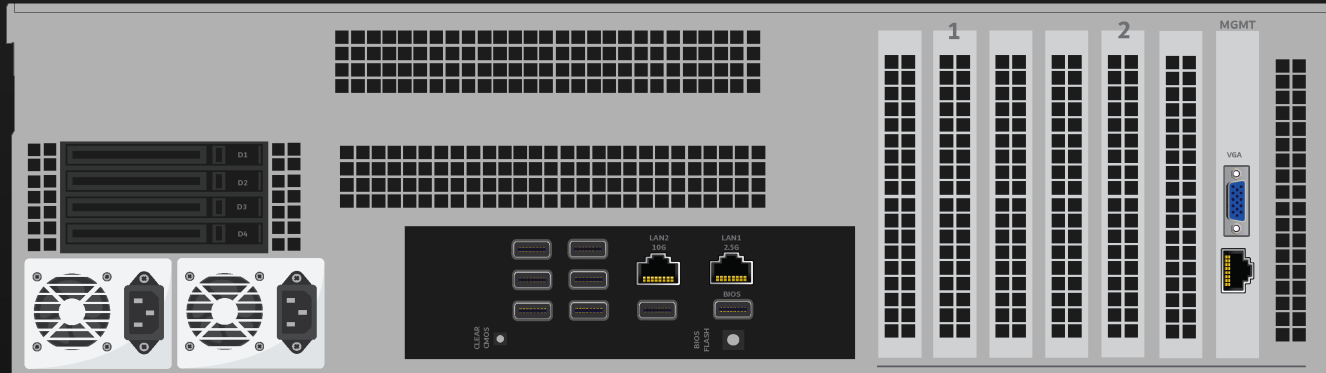


<b>CPU</b>	AMD Ryzen 9950X
<b>CPU Frequency</b>	up to 16 Cores @ 5.4GHz (SSE)
<b>Cache</b>	64 MB
<b>Chipset</b>	AM5
<b>RAM</b>	Up to 192GB DDR5 ECC UDIMM
<b>PCIe</b>	Slot 1 - x16 (Physical) / x16 (Electrical) - HHHH *Only x8 Electrical if Slot 2 populated Slot 2 - x16 (Physical) / x8 (Electrical) - HHHH
<b>LAN</b>	1* RJ45 10GBe - Marvell 1* RJ45 2.5GBe - Intel 1* RJ45 1GBe - Dedicated IPMI (AST 2500)
<b>Rear I/O</b>	4* USB 3.0 1* VGA
<b>RAID</b>	Onboard RAID 0, 1, 5, 10 Optional Hardware RAID 0,00,1,10 - no cache Optional Hardware RAID 0,00,1,10,5,6,60 - 4GB cache
<b>Storage</b>	4 x 2.5" SATA OR 2 x 2.5" NVMe hot-swap caddy 4 x M.2 Socket M

<b>OS Compatibility</b>	Minimum - RHEL 7.8+ Recommended - RHEL 9.1+
<b>Management Tools</b>	AMI SCE Redfish
<b>PSU</b>	1300W Dual Redundant (1+1) 200-240V~ 8A MAX. 60-50Hz
<b>Power Connectors</b>	IEC C13/C14
<b>Avg. Power Usage</b>	150W (Idle) 400W (Load) Power draw based on synthetic load, not including add-in cards.
<b>Operating Temperature</b>	10°C - 27°C (50°F - 80°F)
<b>Dimensions</b>	System: 88 x 438 x 720mm (H x W x D) Boxed: 270 x 580 x 990mm (H x W x D)
<b>Chassis Weight</b>	System: 20KG Boxed: 25KG
<b>Rail Kit</b>	Premium or Short
<b>Certifications</b>	UKCA, CE
<b>Export Code</b>	HTS-84715000

# ACE 3130-RZ

3U Vertical



<b>CPU</b>	AMD Ryzen 9950X
<b>CPU Frequency</b>	up to 16 Cores @ 5.4GHz [SSE]
<b>Cache</b>	64 MB
<b>Chipset</b>	AM5
<b>RAM</b>	Up to 192GB DDR5 ECC UDIMM
<b>PCIe</b>	Slot 1 - x16 [Physical] / x16 [Electrical] - FHHL D. Wide *Only x8 Electrical if Slot 2 populated Slot 2 - x16 [Physical] / x8 [Electrical] - FHHL
<b>LAN</b>	1* RJ45 10GBe - Marvell 1* RJ45 2.5GBe - Intel 1* RJ45 1GBe - Dedicated IPMI [AST 2500]
<b>Rear I/O</b>	2* USB 3.0 1* VGA
<b>RAID</b>	Onboard RAID 0, 1, 5, 10 Optional Hardware RAID 0,00,1,10 - no cache Optional Hardware RAID 0,00,1,10,5,6,60 - 4GB cache
<b>Storage</b>	4 x 2.5" SATA OR 2 x 2.5" NVMe hot-swap caddy 3 x M.2 Socket M

<b>OS Compatibility</b>	Minimum - RHEL 7.8+ Recommended - RHEL 9.1+
<b>Management Tools</b>	AMI SCE Redfish
<b>PSU</b>	1300W Dual Redundant [1+1] 200-240V~ 8A MAX. 60-50Hz
<b>Power Connectors</b>	IEC C13/C14
<b>Avg. Power Usage</b>	150W [Idle] 400W [Load] Power draw based on average load, not including add-in cards.
<b>Operating Temperature</b>	10°C - 27°C [50°F - 80°F]
<b>Dimensions</b>	System: 132 x 438 x 720mm [H x W x D] Boxed: 270 x 580 x 990mm [H x W x D]
<b>Chassis Weight</b>	System: 25KG Boxed: 30KG
<b>Rail Kit</b>	Premium or Short
<b>Certifications</b>	UKCA, CE
<b>Export Code</b>	HTS-84715000

# Specification Comparison

	3120-RZ	3130-RZ
Form Factor	2U	3U
Dimensions (H x W x D)	88 x 438 x 720mm	132 x 438 x 720mm
PCIe Compatibility	2 * Half Height PCIe x16 (physical)	2 * Full Height PCIe x16 (physical)
PSU	1300W	1300W
Clock Speed	5.4GHz	5.4GHz

# Benchmarks

	32GB. 4.18 Kernel	9950X Stock	9950X Blackcore
mlc -r --latency_matrix (ns) [Lower is better]		92.6	66.2
PCIe Latency - slot1 (ns) [Lower is better]		423	410
C2C Lat - Local CCD (avg. ns) [Lower is better]		43	43
C2C Lat - Remote CCD (avg. ns) [Lower is better]		177	165
All-core Clock-speed [SSE, GHz] [Higher is better]		4.7	5.4
Peak IPC [prime95, SSE] [Higher is better]		4.5	5.2